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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/687,107	10/16/2003	Lewis B. Aronson	15436.51.1	7228
22913	7590	10/17/2007		
WORKMAN NYDEGGER 60 EAST SOUTH TEMPLE 1000 EAGLE GATE TOWER SALT LAKE CITY, UT 84111			EXAMINER TRAN, DZUNG D	
			ART UNIT	PAPER NUMBER
			2613	
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			10/17/2007	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

**Office Action Summary**

Application No.

10/687,107

Applicant(s)

ARONSON ET AL.

Examiner

Dzung D. Tran

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 09 August 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-27 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 13-24 is/are allowed.
- 6) ☒ Claim(s) 1-12 and 25-27 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### *Specification*

#### ***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-12 and 25-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Auracher et al. U.S. Patent no. 6,781,727 in view of Wang et al. US Patent no. 6,863,453.

Regarding claim 1, Auracher discloses in Figure 1b, an optical transmission or reception module comprises a matching circuit 7 (e.g., equivalent to flexible circuit) adapted to connect a driver circuit and an optical assembly, said matching circuit 7 (e.g., equivalent to flexible circuit) comprising:

a first transmission line (e.g., the line that containing components C2, R1, R2, or C\*2, R\*1, R\*2) adapted to deliver a first signal from the driver circuit D to the optical assembly LD, said first transmission line comprising a first end adapted to connect to the driver circuit D and a second end adapted to connect to the optical assembly LD;  
and

a second transmission line (e.g., the line that containing components L or L\*) used to bias said first signal, said second transmission line being electrically connected to said second end of said first transmission line.

Auracher does not specifically disclose a flexible member that includes the first and second transmission lines.

Wang discloses in Figure 1, an optical transceiver module comprises a flexible member 150 (col. 6, lines 37-45).

At the time of the invention was made, it would have been obvious to an artisan to include the flexible member taught by Wan in the optical transceiver module of Auracher. One of ordinary skill in the art would have been motivated to do that in order to reduces a disturbance in electromagnetic field, making it possible to improve the transmission characteristic of a high frequency signal.

Furthermore, to include a flexible member in the apparatus is not patentably significant since it relates to the circuit design which is not ordinarily a matter of invention.

Therefore, it would have been obvious to an artisan at the time of the invention was made to include the flexible member in the apparatus of Auracher. One of ordinary skill in the art would have been motivated to do that in order to reduces a disturbance in electromagnetic field, making it possible to improve the transmission characteristic of a high frequency signal.

Regarding claim 2, Auracher discloses in Figure 1b, wherein said at least one first transmission line further comprises a matching impedance R1, R2, R\*1, R\*2.

Regarding claim 3, Auracher discloses in Figure 1b, wherein said at least one second transmission line (e.g., the line that containing components L or L\*) is electrically connected to said at least one first transmission line between said matching impedance R1 and said optical assembly LD.

Regarding claim 4, Auracher discloses in Figure 1b, wherein said optical assembly comprises a laser diode LD.

Regarding claim 5, Auracher discloses in Figure 1b, wherein an end of said at least one second transmission line is electrically connected to a direct current source (e.g., source of bias current).

Regarding claim 6, Examiner take an official notice that the first signal (or modulated driving signal) is well recognized in the art as an alternating current signal.

Regarding claim 7, Auracher discloses in Figure 1b, an optical transmission or reception module comprising:

a first transmission line (e.g., the line that containing components C2, R1, R2, or C\*2, R\*1, R\*2) comprising a first end and a second end, said first transmission line electrically connected at said first end to a means (e.g., laser driver D) for generating modulated signals and electrically connected at said second end to a means(e.g., LD) for generating optical signals based upon said modulated signals; and

electrically connected to said second end of said first transmission line, means (e.g., the line that containing components L or L\*) for biasing said modulated signals. Auracher does not specifically disclose a pliable member including first and second insulating layers between which a portion of the first transmission line is positioned.

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Wang discloses in Figure 1, an optical transceiver module comprises a flexible member 150 including first and second insulating layers between which a portion of the first transmission line is positioned (col. 6, lines 37-45).

At the time of the invention was made, it would have been obvious to an artisan to include the flexible member taught by Wan in the optical transceiver module of Auracher. One of ordinary skill in the art would have been motivated to do that in order to reduces a disturbance in electromagnetic field, making it possible to improve the transmission characteristic of a high frequency signal.

Furthermore, to include a flexible member in the apparatus is not patentably significant since it relates to the circuit design which is not ordinarily a matter of invention.

Therefore, it would have been obvious to an artisan at the time of the invention was made to include the flexible member in the apparatus of Auracher. One of ordinary skill in the art would have been motivated to do that in order to reduces a disturbance in electromagnetic field, making it possible to improve the transmission characteristic of a high frequency signal.

Regarding claim 8, Auracher discloses in Figure 1b, means for generating one or more modulated signals comprises a laser driver D.

Regarding claim 9, Auracher discloses in Figure 1b, wherein said means for generating optical signals comprises a laser diode LD.

Regarding claim 10, Auracher discloses in Figure 1b, a matching circuit 7 (e.g., equivalent to flexible circuit) incorporating said first transmission line and said second transmission line and electrically connecting said means (e.g., laser driver D) for

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generating modulated signals to said means (e.g., LD) for generating optical signals based upon said modulated signals.

Regarding claim 11, Auracher discloses in Figure 1b, a current source (e.g., the source that provide bias current  $I_{bias}$ ), said current source configured to deliver a bias current to said means for generating optical signals.

Regarding claim 12, Auracher discloses in Figure 1b, wherein an end of said second transmission line is electrically connected to a direct current source (col. 6, lines 9-12).

Regarding claim 25, Auracher discloses in Figure 1b, an optical transmission or reception module comprising:

- a driver circuit D adapted to generate a modulated driver signal deliverable to an optical assembly LD;

- a current source (e.g., the source that provide bias current  $I_{bias}$ ) in communication with said optical assembly and adapted to provided a bias current for said optical assembly; and

- a matching circuit 7' (e.g., equivalent to flexible circuit) electrically connecting at least two of said driver circuit D, D\*, said direct current source (e.g., the source that provide bias current  $I_{bias}$ ), and said optical assembly LD, said matching circuit 7' (e.g., equivalent to flexible circuit) comprises:

  - a first transmission line (e.g., the line that containing components C2, R1, R2, or C\*2, R\*1, R\*2), electrically connected to said driver circuit D at a first end and to said

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optical assembly LD at a second end, said first transmission line being adapted to allow said modulated signal to be delivered to said optical assembly; and

a second transmission line (e.g., the line that containing components L or L\*) electrically connected to said current source and to said optical assembly, said second transmission line being connected to said second end of said first transmission line.

Auracher does not specifically disclose first and second pliable insulating layers between which a portion of the first and second transmission lines are disposed. Wang discloses in Figure 1, an optical transceiver module comprises a flexible member 150 including first and second insulating layers between which a portion of the first transmission lines are disposed (col. 6, lines 37-45).

At the time of the invention was made, it would have been obvious to an artisan to include the flexible member taught by Wan in the optical transceiver module of Auracher. One of ordinary skill in the art would have been motivated to do that in order to reduces a disturbance in electromagnetic field, making it possible to improve the transmission characteristic of a high frequency signal.

Furthermore, to include a flexible member in the apparatus is not patentably significant since it relates to the circuit design which is not ordinarily a matter of invention.

Therefore, it would have been obvious to an artisan at the time of the invention was made to include the flexible member in the apparatus of Auracher. One of ordinary skill in the art would have been motivated to do that in order to reduces a disturbance in electromagnetic field, making it possible to improve the transmission characteristic of a high frequency signal.



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Regarding claim 26, Auracher discloses in Figure 1b, wherein said first transmission line further comprises a matching impedance R1, R2, R\*1, R\*2.

Regarding claim 27, Auracher discloses in Figure 1b, wherein said second transmission line (e.g., the line that containing components L or L\*) is connected to said first transmission line between said matching impedance R1 and said optical assembly LD.

3 Claims 13-24 are allowed.

### ***Response to Arguments***

4. Applicant's arguments with respect to new claims 1-12 and 25-27 have been considered but are moot in view of the new ground(s) of rejection.

### ***Conclusion***

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dzung Tran whose telephone number is (571) 272-3025.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

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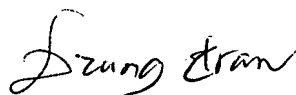
Supervisor, Jason Chan, can be reached on (571) 272-3022.

The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3900.

Dzung Tran

10/13/2007



DZUNG TRAN  
PRIMARY PATENT EXAMINER